

B.S. Cheminformatics Degree

A Four Year Outline

| FALL | | | SPRING | | |
|--|-----|-----------|---|-----|-----------|
| FIRST YEAR | | | | | |
| CH1150 University Chemistry I | AND | 3 | CH1160 University Chemistry II | AND | 3 |
| CH1151 University Chemistry Lab I | AND | 1 | CH1161 University Chemistry Lab II | AND | 1 |
| CH1153 University Chemistry I Recitation | | 1 | CH1163 University Chemistry II Recitation | | 1 |
| | OR | | | OR | |
| CH1112 University Chem-Studio Lab I | | 5 | CH1122 University Chem-Studio Lab II | | 5 |
| CH1130 Orientation | | 1 | MA2160 Calculus II | | 4 |
| PH1100 Physics by Inquiry I | | 1 | PH2100 University Physics I-Mechanics | | 3 |
| MA1160 Calculus I | | 4 | CS1721 Object-Oriented Programming | | 1 |
| UN1001 Perspectives | | 3 | UN1002 World Cultures | | 4 |
| CS1121 Intro Computer Science I | | 3 | | | |
| TOTAL | | 17 | TOTAL | | 17 |
| SECOND YEAR | | | | | |
| CH2410 Organic Chemistry I | | 3 | CH2420 Organic Chemistry II | | 3 |
| CH2411 Organic Chemistry Lab I | | 1 | CH2212 Quantitative Analysis | | 5 |
| CS1122 Intro Computer Science II | | 2 | CS2321 Data Structures | | 3 |
| MA2321 Elementary Linear Algebra | | 2 | UN2001 Revisions | | 3 |
| MA3521 Elementary Differential Eq. | | 2 | General Education Distribution | | 3 |
| PH1100 Physics by Inquiry I | | 1 | | | |
| PH2200 University Physics II – E&M | | 3 | | | |
| UN2002 Institutions | | 3 | | | |
| TOTAL | | 17 | TOTAL | | 17 |
| THIRD YEAR | | | | | |
| CH3510 Physical Chemistry I | | 3 | CH3520 Physical Chemistry II | | 3 |
| CH4710 Biomolecular Chemistry I | | 3 | MA3160 Multivariable Calculus | | 4 |
| or CH4310 Inorganic Chemistry I | | 3 | *Required Elective | | 3 |
| BL1040 Fundamentals of Biology | | 4 | General Education Distribution | | 6 |
| CS2311 Discrete Structures | | 3 | | | |
| CS2141 Software Development C++ | | 3 | | | |
| TOTAL | | 16 | TOTAL | | 16 |
| FOURTH YEAR | | | | | |
| CH4900 Senior Seminar I | | 1 | CS4421 Database Systems | | 3 |
| CS4321 Introduction to Algorithms | | 3 | *Required Elective | | 3 |
| *Required Elective | | 3 | Free Electives | | 6 |
| Free Elective | | 3 | General Education Distribution | | 3 |
| General Education Distribution | | 3 | | | |
| TOTAL | | 13 | TOTAL | | 15 |
| GRAND TOTAL = 128 Credits | | | | | |

* Required Electives must be chosen from the two specified lists. If CH4990 (undergraduate research) is chosen, it must be taken for two semesters for a minimum of 6 credits.

NOTE: 3 Units of co-curricular activities are required (P.E. courses are taught in 0.5 unit classes. Thus, 6 of these are needed for 3 units). It is highly recommended that students take at least one P.E. class during each semester of their first year, if possible.